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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,222	07/08/2003	Burkhart Grob	P69007US0	7284

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EXAMINER

ROSS, DANA

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 01/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/614,222		GROB, BURKHART	
	Examiner		Art Unit	
	Dana Ross		3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-74 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-12, 28, 31-34, 38, 41, 45, 46, 49, 52, 59, 62-64, 67 and 69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 4, 13-27, 29, 30, 35-37, 39, 40, 42-44, 47, 48, 50, 51, 53-58, 60, 61, 65, 66, 68 and 70-74.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show in the elected embodiment of Figure 21 the workpiece carriage which moves in only one linear direction carrying the tool magazine and the carriage being positioned correspondingly for a change of tools. Figure 21 shows the tool changer separate from the workpiece carrier 4.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed limitation that “each tower carries a movable workpiece carriage” must be shown or the feature(s) canceled from the claim(s). It is noted that one workpiece carriage (4) is shown on Figure 21 underneath the spindle (30). It is not clear how the movement of this carriage can move the workpiece without interfering with the spindle. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet”

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 38, 41, 45, 46, 49 and 52 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 38, it is not clear from the disclosure how the workpiece carrier of claim 1 which moves in one linear direction *only*, carries a tool magazine for the machining unit and can be positioned corresponding for a change of tools on the machining unit. See drawing objection of figure 21 above.

Claim 41, it is not clear from the disclosure how the “workpiece carriage (4) serves for grasping, respectively releasing, the workpiece (2), respectively the workpiece carrier (5), from the workpiece carriage”. It is not clear how the workpiece carriage can grasp something from itself.

Claims 45, 46, 49 and 52, It is not clear how the two towers carrying the workpiece carriages (4) can move the workpiece without interfering with the spindle (30).

Applicant is required to review all claims to ensure compliance with 35 USC 112 1st paragraph or withdraw the claims as being drawn to a non-elected embodiment.

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4. Regarding the previous 35 USC 112 2nd Paragraph rejections, it appears Applicant has resolved the issues identified in the previous office action. It is noted again that Applicant is required to ensure all claims are in compliance with 35 USC 112 2nd Paragraph.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 5, 8-12, 28, 31-34, 41, 59, 62-64, 67 and 69, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 3,559,256 (Lemelson, hereafter ‘256).

‘256 teaches a machining station with a plurality of machining units 16 and a conveyor 75 for transferring the workpieces W on a carrier or pallet WP (see col. 18, lines 59-65, for example) between the machining units 16 and a workpiece push device 72 which moves the workpiece on the conveyor 75 in one linear direction to a machining unit (see fig. 6 and 7, for example). It is noted that the conveyor and the push device would be supported by a device that would as a minimum be considered a “stand”.

‘256 also teaches the tool spindles movable relative to the workpiece along two directions (see fig. 2 and col. 18, lines 46-58).

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'256 also teaches the workpiece carriage can move in the many different directions, which would include vertical movement, depending on the operation being performed (see col. 18, lines 8-26, for example).

'256 also teaches the workpiece held by a carrier or pallet (see col. 18, lines 59-65). Though '256 is silent as to the workpiece being "clamped" in the carrier or pallet, it is inherent in the machining that the workpiece would be clamped to ensure the workpiece did not move or was pushed off the conveyor during the machining process. In the even that Applicant does not agree that the clamping of the workpiece is inherent in the workpiece carrier, Applicant is referred to the below 103 rejection.

7. Claims 1-3, 5, 8-12, 28, 31-34, 38, 41, 45, 46, 49, 52, 59, 62, 63, 67 and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. No. 5,688,084 (Fritz et al., hereafter '084).

'084 teaches a machine tool with a conveyor and discharge point for a workpiece holder 48 with a linear drive 44 (see fig. 1) and a tool changer (see fig. 6). It is noted that the conveyor carries a pallet which transfers the workpiece to a transport position for machining, the conveyor having two separate areas (towers) on either side of the machine tool (see fig. 6, for example).

8. Claims 1-3, 5, 7-12, 28, 31-34, 41, 45, 46, 49, 52, 59, 62-64, 67 and 69 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 02/00388 A1. It is noted that the US equivalent document of '0388A1 is US Pat. No. 6,826,821 (Geiger, et al., hereafter '821). All references to the WO patent will be made by reference to the '821 patent.

'0388A1 and '821 teach a machining stations 36 moveable in two directions, conveyor 38, 42, 59 (for example) and workpiece transport device 41 with towers 54 and 55 and holding

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fixture 29 (see figures 4 and 5, for example). The grippers 54, 55 movable vertically (col. 4, lines 59-62).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 9 and 10, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over ‘256 in view of US Pat. No. 3,854,889 (Lemelson, hereafter referred to as ‘889).

‘256 teaches all aspects of the claim 1 as is discussed in the above rejection.

‘256 teaches a carrier, but is silent as to the actual “clamping” of the workpiece in the workpiece carrier (pallet).

‘889 teaches it is well known in the art to clamp a workpiece in a workpiece carrier (see fig. 15, col. 13, lines 34-53, for example).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the carrier as taught by ‘256 to include the clamping of the workpiece in the workpiece carrier as taught by ‘889 for the purpose of prepositioning and retaining the workpiece in the carrier for an automatic production system employing a plurality of numerically controlled machines which are automatically loaded and unloaded with different units of work in any desired sequence and to hold and preposition work of different shapes with respect to selected power operated devices (see col. 1, lines 51-67, for example).

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11. Claim 38, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over '256 in view of '084 and over '821 in view of '084.

'256 and '821 teach all aspects of claim 1 as is discussed in the above rejections.

Neither '256 nor '821 address a tool changer.

Examiner notes it is notoriously well known in the art to have a tool changer with a machine tool.

'084 teaches it is well known in the art to provide a tool changer in the area of the spindle and the workpiece.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the machine tools as taught by '256 and '821 to include the use of a tool changer for the purpose of rapid replacement of tools during a machining operation to save both time and money in the machining process.

Response to Arguments

12. Applicant's arguments filed 10 January 2006 have been fully considered but they are not persuasive.

Regarding Applicant's comments regarding the drawing objection, Figure 21 shows the workpiece carrier 4 separate from the tool changer 32. Claim 38 (as currently amended) stated "the workpiece carriage carries a tool magazine for the machining unit and the workpiece carriage is positioned correspondingly for a change of tools on the machining unit." This structure is not found in the elected embodiment of Figure 21, and furthermore can not perform the claimed limitation with the structure that is shown in the Figure.

It is noted that Applicant references pages of the specification that do not correspond with the current specification. For example, Applicant refers to pages 45 and 47, while there is only 36 pages of the disclosure.

Applicant further addresses arguments to drawings of non-elected embodiments. For example, Applicant asserts the features of the workpiece carriage 4 carries the tool magazine 32 in Figure 24, (page 21 of Applicant's argument) yet Figure 21 was the elected embodiment. As a side note, it is further noted that Figure 24 does not appear to show the workpiece carriage 4 carrying the tool magazine 32.

Applicant refers to "work piece slide 4" and "work piece carrier 5" in the arguments. Examiner notes that the specification defines reference number 4 as "workpiece carriage" and reference number 5 as "workpiece carrier".

Based on Applicants assertions to the enablement issues of claims 38,41,45,46,49 and 52 being directed to non-elected embodiments, it appears these claims should be withdrawn.

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However, at this time Examiner will provide Applicant additional response to the above enablement rejections.

Regarding Applicants comments as to the cited prior art, Applicant asserts that the workpiece carriage 4 guided in a stand or a tower is not found in either of the cited prior art in the rejections. As stated in the above, and previous rejection, the conveyor and push device would be supported by a device that would as a minimum be considered a generic stand. Applicant has provided no limitations on the structure of the “stand” or “tower”.

Applicant asserts that the amended limitations of claim 1 does not teach the workpiece moved in the Y-direction. It is noted that claim 1 does not require the workpiece to be moved in the Y-direction, only in “at least one linear direction”, which is taught by Lemelson.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana Ross whose telephone number is 571-272-4480. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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